

CITY OF GROVE CITY, OHIO

Street, Storm, and Water General Notes

1. **SPECIFICATIONS:** The current City of Columbus and Ohio Department of Transportation (ODOT) "Construction and Material Specifications" (CMSC and ODOT CMS respectively) together with the requirements of the City of Grove City, Ohio, including all supplements thereto, in force on the date of the contract shall govern all materials and workmanship involved in the improvements shown on these plans except as such specifications are modified by the following specifications, or by the construction details set forth herein. In case of any conflict among these identified technical specifications, the greater requirement shall take precedence (as determined by the sole discretion of the City Engineer) unless directed otherwise by the City Engineer.

General provisions of the ODOT and the City of Columbus CMS as modified herein shall not apply. This exclusion includes but is not necessarily limited to Division 100 of the ODOT and City of Columbus CMS.

2. **ELEVATION DATUM:** Elevations shown on these plans are based on NAVD 88 Datum.
3. **BENCHMARKS:** The Contractor shall carefully preserve benchmarks, property corners, reference points, and stakes. Any benchmark, property corner, or survey marker damaged or disturbed by the Contractor shall be reset by an Ohio Registered Surveyor at the Contractor's expense.
4. **SAFETY REQUIREMENTS:** The Contractor and any and all Subcontractor shall be solely responsible for complying with all federal, state, and local safety requirements, together with exercising precautions at all times for the protection of persons (including employees) and property. It is also solely the responsibility of the Contractor and Subcontractor to initiate, maintain, and supervise all safety requirements, precautions, and programs in connection with the work.
5. **CONFINED SPACE ENTRY:** The Contractor shall be solely responsible for following the OSHA requirements for "Confined Space Entry" (CSE), Title #29 of the Federal Regulations Code, Part 1910.146, while performing work inside any manhole or other confined space requiring a permit. Copy of all CSE permits shall be given to the City upon project completion.
6. **PERMITS:** The Contractor or Developer shall secure and pay for all permits and government fees, licenses, and inspections necessary for the proper execution and completion of the improvements shown on the plans.
7. **FRANKLIN COUNTY PERMIT:** The Contractor or Developer shall secure a written permit from the Franklin County Engineer's Office, 970 Dublin Road, a minimum of two working days prior to beginning work within Franklin County right-of-way. The Contractor may be required to post a bond with the Franklin County Engineer prior to issuance of the permit to insure proper restoration of the pavement and R/W. The Contractor shall provide the Franklin County Engineer's Office a 24-hour telephone number to be used in case of an emergency.

8. NOTIFICATION: The Contractor shall notify the City Engineer at least 48 hours in advance (holidays and weekends excluded) of the anticipated start of work requiring inspection, testing, or approval by the City Engineer. Work shall not commence until a pre-construction conference is held.

The Contractor shall notify all adjacent landowners a minimum of one week in advance of work near their property. The Contractor shall coordinate with City for a suggested format for the notice.

9. INSPECTION: The City of Grove City will provide all construction inspection for this project. No work shall be commenced until arrangements have been made with the City Engineer and Service Director for inspection services.
10. WORK HOURS: General work hours on this project shall be as described in Section 105.06 and 105.07 of the CMSC, with the exception being lining operations. Certain street intersections may have working hour restrictions; for this information, refer to the traffic notes on Sheet # XX
11. UTILITIES: The identity and locations of existing underground utilities in the construction area have been shown on the approved construction drawings as accurately as provided by the Owner of the underground utility as required by Section 153.64 or Section 3781.27 of the Ohio Revised Code. The City of Grove City and the Engineer assume no responsibility for the accuracy of locations or depths of underground facilities shown on the approved construction drawings. When unknown or incorrectly located underground utilities are encountered during construction, the Contractor shall immediately notify the utility owner and the City.

The Contractor shall notify the Ohio Utilities Protection Service (OUPS) at (1-800-362-2764) at least 48 HOURS, and NO MORE THAN 10 DAYS PRIOR TO excavating, with such time periods not including weekends or holidays. Contractor shall similarly contact all utility owners who are not subscribers to OUPS.

The following utilities are located within the work limits of this project and the owners do not subscribe to a registered underground utility protection service.

UTILITY	OWNER	TELEPHONE
Water, Sanitary, and Storm Facilities	City of Grove City 4035 Broadway Grove City, Ohio 43123	614-277-1100

The City of Grove City is not a member of the Ohio Utilities Protection Service. Before you excavate, fax the City of Grove City service department, (614) 277-1112 with your marking request.

The following additional utilities are known or can be expected to be located within the limits of this project.

UTILITY	OWNER	TELEPHONE
LIST UTILITIES		

The Contractor is responsible for the investigation, location, support, protection and restoration of all existing utilities and appurtenances whether shown on the plans or not. The Contractor shall proceed with the work and protect all underground utilities in a manner at least as cautious and protective of safety and underground utilities as those methods identified in Sections 3781.25 through 3781.30 of the Ohio Revised Code.

All private utility relocation (gas, electric, phone, etc.) will be the responsibility of the utility owners. The Contractor is responsible for coordinating the relocation and/or protection of any utilities as required by the plan with the owner of the affected utility.

12. **EXPOSE EXISTING UTILITY:** Where potential grade and alignment conflicts might occur with existing utilities, or as specifically called out on the plans (these locations are noted thus: **EXPOSED**), the Contractor shall expose utilities or structure sufficiently in advance of laying pipe for the Engineer to verify the vertical and horizontal effect on the proposed construction. Any discrepancy to the plans shall be coordinated with the City Engineer to ensure that there are no construction or conflict issues associated with discrepancy. The cost of this work shall be included in the unit price bid for the proposed sewer if a specific bid item is not provided in the estimate of quantities.
13. **CONFLICTS:** In all conflicts in grates between the water main and gravity sewers, the water main shall be lowered during construction, unless otherwise directed by the City Engineer.
14. **HOUSE SERVICE LINES:** The Contractor shall assume that each house has at least one water and one gas service line unless more are marked by the utility company. It is the Contractor's responsibility to locate and support these service lines. Cost for location and support shall be included in the cost bid for various items. Where service lines are cut or broken, the lines are to be restored to the standards of the utility owner at the Contractor's expense.
15. **SITE VISIT:** The Contractor shall perform field reconnaissance to become acquainted with the existing site conditions and the potential effects upon the scope of work.
16. **MISCELLANEOUS WORK:** The Contractor shall furnish all labor, materials, tools, equipment, services, and related accessories for a complete project, as shown and described in the plans and specifications. The price for items of work or materials shown on the plans or provided for in the specifications or special provisions for which no specific method of payment is provided, shall be performed by the Contractor and the costs included among the various bid items. Submission of a bid shall be considered evidence that the bidder is satisfied with the plans and conditions, as shown. No additional compensation will be paid to the Contractor for compliance with the plans, specifications, or special provisions.
17. **SUBSURFACE SOIL DATA:** Test borings have been taken at several locations along the project corridor for design purposes. The subsurface soils report is available for the Contractors review. The Contractor must make written request for this information. Any performance of additional site subsurface investigations (test holes) shall be coordinated in advance with the City as warranted. Excavated material shall be replaced in a controlled manner to minimize impact on field earthwork. Any requirements or contingencies included within the soils report shall be included in the various bid items unless specifically identified in the estimate of quantities.

OR

Subsurface investigations were not taken by the Engineer. It is the responsibility of the Contractor to make his own investigations of subsurface conditions prior to submitting his proposal. Any performance of site subsurface investigations (test holes) shall be coordinated in advance with the City as warranted. Excavated material shall be replaced in a controlled manner to minimize impact on field earthwork.

18. **RIGHTS-OF-WAY:** In addition to the direct requirements of the contract specifications, the Contractor shall observe and conform to the specific requirements of all Rights-of-Way, including easements, court entries, rights of entry, or action filed in court in accordance with the code of the applicable governing agency. The cost of the operations necessary to fulfill such requirements shall be included in the price bid for the various items of the contract unless specific provision is made in the contract specifications for such cost under specific Items of the contract.

19. **EASEMENTS:** Approval of this plan is contingent on all easements required for the construction of the work being secured and submitted to the City of Grove City for recording prior to commencement of the work, and no work which requires an easement will be allowed to proceed until this has been done.

20. **WORK LIMITS:** The Contractor is responsible for containing all performed work and all equipment, materials, vehicles, etc., used to complete the work within the rights-of-way of the streets, roadways and permanent easements, as shown on these plans.

The Contractor is responsible for cost of restoration for any area outside of the right-of-way or permanent easement to former condition and to the satisfaction of the Property Owner.

21. **CONTRACT WORK PERFORMED BY THE CITY:** In the event that it becomes necessary for the City to perform work of an immediate nature (such as the placement of barricades or replacement of signs or other warning or protective devices) required of the Contractor by this contract because of failure or refusal of the Contractor to perform such work, the Contractor shall reimburse the City at the Rate of 2.5 times the actual cost of labor, materials and equipment necessary to perform such work. The City shall be reimbursed by the Contractor by way of a deduction from the Contractor's net payment under the Contract.

22. **CONVENIENCE FACILITIES:** The Contractor shall furnish and maintain sanitary convenience facilities for the workmen and inspectors for the duration of the work. Cost shall be included in the price bid for the various items.

23. **MAIL SERVICE:** The Contractor shall be responsible for maintaining mail service in the construction area. Prior to disturbing any mail boxes, the Contractor shall contact the Postal Authorities and shall temporarily relocate mail boxes in accordance with Postal requirements. The Contractor shall restore mail boxes to their original condition and location. Cost to be included in the price bid for the various items.

24. **TRASH COLLECTION SERVICE:** The Contractor shall contact the City of Grove City for current collection date each week prior to starting work and be responsible for maintaining a 20 foot wide clear area for trash can placement in the front of each lot for trash collection service in the construction area on the designated trash day.
25. **NON-RUBBER TIRED VEHICLES:** No non-rubber tired vehicles shall be moved on City streets. Exceptions may be granted by the City of Grove City where short distances and special circumstances are involved. Granting of exceptions must be in writing, and any damage must be repaired by the Contractor to the satisfaction of the City of Grove City.
26. **SIGNS, MAILBOXES, FENCES, ETC.:** The Contractor shall be responsible for restoring all signs, mailboxes, fences, guardrail, shrubs, property, drainage structures, or other physical features disturbed or damaged during construction whether shown on the plans or not to their original location and condition and to the satisfaction of the property owner. Cost to be included in the price bid for the various items.
27. **PROTECTION OF STREET TREES:** The City of Grove City has been designated as a "Tree City USA" for its' outstanding street tree resources. The Contractor's cooperation is required to prevent damage to existing street trees. Any damages to limbs, bark, roots, etc. shall cause City to retain \$1,000 per occurrence for a period not to exceed two years. If the tree dies as a result of damages, then money retained shall be used to remove and replace the tree. If the tree survives two years past the final completion date of contract then funds will be released. The City's Urban Forester will provide a written report and photographic evidence to support his findings to document all damages. A damaged tree may be removed and replaced anytime prior to the two years at the Forester's sole discretion. If the Contractor believes that he cannot perform the work required by the Contract without damaging the street tree, he shall so notify the City in advance of such work and a release will be provided from these requirements on a case by case basis. All exposed roots shall be neatly cut and trimmed prior to backfill. The roots shall be inspected by the City's Urban Forester prior to backfill.
28. **PRUNING:** Branches or growth which interferes with the free construction of the project may be removed from trees/bushes that are to be saved by the use of pruning tools with prior approval from the Engineer and City's Urban Forester. All pruning tools used and methods employed shall meet the approval of the Engineer and City's Urban Forester. The branches shall be removed with a good clean cut made flush with the parent trunk or if having a good healthy lateral branch, the cut shall be a good clean slanting cut close to and beyond the healthy branch. All pruning cuts shall be painted with an accepted pruning preservation. The cost of all work and expenses connected with tree pruning shall be included in the price bid for CMSC Item 201, Clearing and Grubbing. No extra payment shall be made.
- Trees damaged or destroyed that were not designated for removal or approved by the Engineer for removal shall be replaced at the Contractor's expense.
29. **STANDARD TOPSOIL, SEEDING, FERTILIZER, AND MULCHING:** All topsoil shall be of the highest quality and free of all stones, trash and other deleterious materials greater than ¼". Organic content shall be tested by an approved lab and certified to be between 10-20% by weight, and all topsoil shall be saturated with water and allowed to settle prior to seeding. Settled areas shall be refilled and saturated again prior to seeding. The grades shall match all existing landscape and any improvements completed under this

plan. The Contractor shall scarify the soil surface to open the soil prior to seeding. All seeding, fertilizer, and mulch shall be placed within 5 working days of placing topsoil. The seeding and fertilizer mixes shall be as specified by the City and shall be installed per the manufacturer's recommendations. The starter-fertilizer mix shall contain a minimum of 3% Siduron, to prevent weed establishment. No weeds or undesirable grasses will be accepted in the final inspection. If the initial seeding is not 95% established by September 15th, the Contractor shall re-seed, fertilize, and mulch the bare areas prior to October 1st.

30. DEWATERING: The Contractor is solely responsible to the Ohio Department of Natural Resources (O.D.N.R.) for registry, maintenance, and abandonment of any withdrawal devices used in the construction of this project.

Installation of any well, well point, pit or other device used for the purpose of lowering the groundwater level to facilitate construction of this project shall be properly abandoned in the provisions of Section 3745-9-10 of the Ohio Administrative Code or as directed by the Director or his representatives.

The Contractor shall be required to complete and file a Well Log and a Drilling Report Form with O.D.N.R., Division of Water, within 30 days of the completion of installation of any well, well point, pit or other device used for the purpose of removing groundwater from an aquifer, in accordance with Sections 1521.01 and 1521.05 of the Ohio Revised Code. In addition, any such facility that has a capacity to withdraw waters of the State in an amount greater than 100,000 gallons per day from all sources shall be registered by the Contractor with the Chief of the O.D.N.R., Division of Water, within three months of the completion of the facility in accordance with Section 1521.16 of the Ohio Revised Code. Copies of the necessary paperwork can be obtained at O.D.N.R., Division of Water, Fountain Square, Columbus, OH, 43224-1387 – (614) 265-6717.

The Contractor shall furnish and operate suitable pumping equipment of such capacity, adequate to dewater the trench, should water be encountered. The trench shall be sufficiently dewatered so that the placement of bedding and the lying and joining of pipe is made on firm, dry ground. If dewatering cannot produce acceptable subgrade, and only as directed by the Engineer, unsuitable materials shall be removed and replaced by CMSC Item 906, stone foundation.

The Contractor shall convey all trench water to a natural drainage channel or storm sewer without damage to property. The Contractor shall be responsible to place and maintain the necessary sediment control measures to filter the dewatering discharge. Cost for the above shall be included in the bid price for the sanitary sewer improvements.

The cost of any dewatering operations required for the construction of the sanitary sewer shall be included in the price bid for the various sewer items.

31. REPLACEMENT OF DRAIN TILES AND STORM SEWERS: All drain tile and storm sewers damaged, disturbed, or removed as a result of the Contractor's operations shall be replaced with the same quality pipe or better, maintaining the same gradient as existing. Replaced drain tile shall be laid on compacted bedding equal in density to surrounding stratum. Replacement shall be done at the time of the backfill operation. Cost of this work to be included in the price bid for the various items.

32. **MAINTAIN DRAINAGE:** The flow in all sewers, drains, and watercourses encountered shall be maintained by the Contractor at his own expense, and whenever such watercourses and drains are disturbed or destroyed during the prosecution of the work, they shall be restored by the Contractor at his own cost and expense, unless specific provision is made within the Contract Documents for the measure of and payment for such cost specific items, to a condition satisfactory to the Engineer.
33. **INLET PROTECTION:** The Contractor is responsible to keep all storm sewer inlets protected from excessive amounts of sediments using adequate filtering devices as approved by the City.
34. **EROSION & SEDIMENTATION CONTROL:** The Contractor shall provide sediment control at all points where storm water runoff leaves the project including waterways, overland sheet flow, and storm sewers. Erosion and sediment control shall be provided as per the requirements of the City of Grove City and the Standards and Specifications of the "Rainwater and Land Development" manual of the ODNR.

Erosion control measures are to be installed per NPDES permit regulations or as directed by the City Engineer, and are to be maintained until such time that they are no longer required by the permit and the City Engineer. Cost for erosion and sedimentation control shall be included in the price bid for CMSC Item 207.

All land disturbing activities shall be subject to inspection and site investigation by the City of Grove City and/or the Ohio EPA. Failure to comply with these regulations is subject to legal enforcement action.

The Contractor is responsible to notify the City of Grove City 48 hours prior to commencement of initial site land disturbance on any site of two or more acres. This includes site clearing, grubbing and any earth moving. Primary erosion and sediment control practices are mandated by regulations to be in place from the beginning of the construction activity.

35. **SOIL STOCKPILES:** The Contractor shall be responsible for keeping all soil stockpiles, including trench excavation stockpiles, protected from erosion. The areas surrounding the stockpiles are to be protected from sediment with the use of perimeter control devices such as earth or straw bale devices or silt fences. These perimeter control devices shall be maintained for the duration of the project.
36. **DISPOSAL OF EXCESS EXCAVATION:** The Contractor shall dispose of all excess excavation at such location on the project site as approved by the Engineer. For disposal outside the limits of the project the Contractor shall provide a copy of the signed, written agreement between the Contractor and the off-site Landowner before such disposal occurs. This written agreement shall clearly state the purpose of the agreement and indicate the landowner's permission for such use.
37. **CONSTRUCTION DEBRIS:** The Contractor shall be responsible for the immediate cleanup of any debris, mud or dirt tracked or spilled on City and/or public streets or private drives whether inside or outside the project area. The Contractor is responsible for the cost of any services contracted and/or completed by the City of Grove City in the clean up of any tracking or spillage anytime during project construction. The Engineer may require the Contractor to perform weekly street cleaning if excessive amounts of dirt

and mud are left along the street. This may include removal by sweeping, power cleaning, or manual methods. The cost of this work shall be included in the various contract items, unless otherwise specified

38. **CLEAN UP:** All debris, rubble, unusable materials, and items not salvaged by the Owner shall become the property of the Contractor and shall be removed from the site by the Contractor and disposed of properly.
39. **MAINTENANCE OF TRAFFIC NOTES:** All temporary traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the Ohio Manual of Traffic Control Devices for Construction and Maintenance Operations (current edition), copies of which are available from the Ohio Dept. of Transportation, Bureau of Traffic, 1980 West Broad St., Columbus, OH 43223.

Steady-burning, Type "C" lights shall be required on all barricades, drums, and similar traffic control devices in use at night. Cones are NOT approved for use at night.

All trenches within the road right-of-way shall be backfilled or securely plated during non-working hours.

Access to all properties within the project area shall be maintained at all times.

All traffic lanes shall be fully open to traffic from 7:00 a.m. to 9:00 a.m. and 4:00 to 6:00 p.m. weekdays on all roadways with the project area. One lane may be closed to traffic during working hours.

Two-way, one-lane traffic shall be maintained during construction operations in accordance with page C-18 of the Ohio Manual. A uniformed officer shall be substituted for each flagman shown on that page and such officers shall be present whenever two-way, one-lane operation is in effect.

Police Officers are not needed, unless a hazard develops, for two-way, one-lane traffic maintained during construction operations on all roadways within the project area. If a hazard develops, an off-duty officer may be assigned by the City to the project at the Contractor's expense.

All permanent traffic controls not in conflict with the temporary traffic controls shall be maintained through this project by the Contractor. Permanent traffic controls may be temporarily relocated by the Engineer. The Contractor shall assume all liability for missing, damaged, and improperly placed signs.

Any work done by the City, including installation, relocation, removal and/or replacement of permanent traffic control devices as a result of work done by the Contractor or as a result of the negligence of the Contractor shall be at the expense of the Contractor.

40. **CONCRETE PIPE AND STRUCTURE INSPECTION:** All precast concrete products shall be inspected at the location of manufacture. All concrete pipe, storm, and sanitary sewer structures will be stamped or have such identification noting that said pipe, storm, and sanitary structures have been inspected by the City of Columbus and meets their

specifications. Installation of pipe and structures without proper identification will not be permitted.

41. PIPE MATERIAL: All sewer pipe on this project shall be in accordance with Section 901 or the CMSC. The following Columbus Construction and Material Specification (CMSC) pipe materials will be permitted for use for public sewers:

SANITARY SEWER PIPE

Outside of R/W Limits

Flexible Pipe will be allowed for sewers ≤ 15 " diameter (PVC Pipe 720.01) that have a minimum of 4' coverage and a maximum of 20' coverage.

Rigid Pipe will be required for all sewers greater than 15" (Reinforced Concrete Pipe 706.02, Vitrified Clay Pipe 706.08, Ductile Iron 801.03) or for all pipe that will have less than 4' coverage or greater than 20' coverage.

Within R/W

Flexible Pipe will be allowed for sewer ≤ 12 " diameter (PVC Pipe 720.01) that have a minimum of 4' coverage and a maximum of 20' coverage.

Rigid Pipe will be required for all sewers greater than 12" (Reinforced Concrete Pipe 706.02, Vitrified Clay Pipe 706.08, Ductile Iron 801.03) or for all pipe that will have less than 4' coverage or greater than 20' coverage.

STORM SEWER PIPE

Outside of R/W Limits

Flexible Pipe will be allowed ≤ 15 " diameter (PVC Pipe 720.01) that have a minimum of 4' coverage and a maximum of 20' coverage.

Rigid Pipe will be required for all sewers greater than 15" (Reinforced Concrete Pipe 706.02, Concrete Box 706.05) or for all pipe that will have less than 4' coverage or greater than 20' coverage.

Within R/W

Rigid Pipe will be required for all sewers (Reinforced Concrete Pipe 706.02, Concrete Box 706.05)

Flexible pipe will be allowed for 4" and 6" drain tiles within the right-of-way.

42. TRENCH BACKFILL: Trenches within a 1:1 influence of the roadway and/or pavement, including all points to within 3' behind the curb, are to be filled have Type A backfill. Trenches within the right-of-way but outside the road influence shall be filled and compacted as per Type B backfill. All other trenches can be filled and compacted as per Type C backfill.

All item numbers shown below refer to City of Columbus construction and material specifications (CMSC) item numbers.

Type A backfill shall be granular material, conforming to 703.01 No. 4 coarse aggregate or item 304, as directed by the Engineer compacted as stipulated in item 912.03. in all cases granular material shall be used around all manholes, structures and cleanouts.

Type B backfill shall be natural soil free from stones larger than two inches across their greatest dimension, topsoil, vegetation, debris, rubbish or frozen material, compacted to 95% of its maximum laboratory dry weight. Placed per section 901.17.

Type C backfill shall be natural soil free from stones larger than six inches across their greatest dimension, vegetation, debris, rubbish or frozen material, compacted to 90% of its maximum laboratory dry weight. When approved by the engineer, rocks no larger than one cubic foot may be deposited at least three feet above the top of the sewer.

Aggregate for bedding is No. 57 or No. 8, as per Item 703.

The excavated trench width twelve inches (12") above the conduit may be increased without extra compensation.

43. TRENCHES: All trenches shall be maintained as safe as possible by the Contractor at all times and backfilled as soon as practical. All trenches during non-working hours require traffic plates, and/or lighted barricades and construction fence.
44. TRENCH DAMS: All sanitary sewers require trench dams between manholes and on service laterals, at the property line, made of bentonite or other approved impermeable clay. Trench dams shall be constructed on all sanitary sewers in accordance with item 901.11.
45. WATER MAIN SEPARATION: The Contractor shall maintain eighteen inches (18") vertical and ten feet (10') horizontal separations between any water main and sanitary sewer.
46. DEFLECTION TESTING: All flexible storm sewers are subject to Mandrel Testing and/or video inspection as directed by the City Engineer. Testing shall be performed no sooner than 30 days after the pipe trench has been backfilled and all roadway and site fills over the storm sewers constructed. The testing shall be completed in conformance with the requirements of CMSC Item 901.21. Maximum deflection shall not exceed 5% of the base inside diameter. Cost of the testing shall be at the expense of the contractor.
47. GRADE CHECKS – The Contractor shall ensure there is a surveyor's level and rod on the project for use in performing grade checks whenever sewer line structures or pipe are being installed. The Contractor shall make this equipment available for the use of and assist the City Inspector in performing grade checks when requested by the inspector. The inspector will make all reasonable attempts to confine requests for assistance in performing grade checks to a time convenient to the Contractor.

These checks will be performed to ensure the following:

- A. Proper placement of each structure.
- B. Proper installation of initial runs of pipe from a structure.
- C. Grade, after an overnight or longer shutdown.
- D. Grade, at any other time the inspector has reason to question grade of installation.
- E. A grade check performed by the City Inspector in no way relieves the Contractor for the ultimate responsibility to ensure construction to the plan grade.

48. **GRADE CHANGES:** If it is determined that the elevation of the existing sewer or existing appurtenance to be connected, differs from the plan elevation or results in a change in the plan sewer slope, the Engineer shall be notified before starting construction of any portion of the proposed sewer, which will be affected by the variance in the existing elevations.

If it is determined that the proposed sewer will intersect an existing sewer or underground utility if constructed as shown on the plan, the Engineer shall be notified before starting construction of any portion of the proposed sewer, which would be affected by the interference with an existing facility.

Grades and elevations shown on the plans shall not be revised under any circumstances without first obtaining written approval from the Engineer. Invert elevations shall not deviate from plan elevations by more than 0.05'. Failing to meet the above requirements is cause for rejection of the affected section of sewer.

49. **STRUCTURE ADJUSTMENT:** The Contractor shall field verify the top of casting elevation of all proposed manholes. If precast structures are utilized, a minimum of the top 6" and a maximum of 12", shall be field placed either with grade rings or brick and mortar to allow for field adjustment.

50. **TEMPORARY BULKHEAD:** The Contractor shall install a temporary bulkhead, where directed on the plans, prior to construction of the proposed sewers and shall maintain same until said sewers are accepted by the Engineer.

51. **CITY WATER:** The Contractor must obtain from the City of Columbus, Division of Water a fire hydrant permit prior to connection of their water supply lines to any fire hydrant. The Contractor shall provide all the necessary gate valves, back flow preventers, and flow meter for each hydrant location. All equipment, fittings, and valves shall be in accordance with Division of Water Standards. The Contractor shall pay for water at the current City Rates. Use of water from fire hydrants and associated fees are outlined in the City of Grove City Rule and Regulation #93.3. A copy of this regulation is available from the Division of Water, Permit Office, 614-645-7695.

52. **INTERRUPTION OF WATER SERVICE:** The Contractor shall give written notice to all affected property owners at least 24 hours, but not more than 72 hours prior to any temporary interruption of water service. Interruption of water service shall be held to a minimum and shall be approved by the City.

53. **STATIONING:** All stationing refers to roadway centerline stationing unless otherwise noted on the plans.

54. **WATER MAIN MATERIALS:** All waterline material on this project shall be in accordance with Section 801 or the CMSC. All waterline installation and testing shall be in accordance with the current rules and regulations of the City of Columbus, Division of Water.

55. **EXISTING VALVES:** All existing valves shall be operated by City of Columbus, Division of Water, personnel only, as stated in Chapter 1113 of the Columbus City Code.

56. **TESTING PROCEDURE:** All water mains shall be hydrostatically tested in accordance

with section 801.12. Cost of this work is to be included in the unit price bid for the respective pipe under CMSC Item 801.

Each valve section of water main shall be tested independently of one another unless otherwise approved by the Engineer. Pressure test shall be conducted with all watch valves open and hydrant foot valves closed.

Any testing performed against existing valves shall be at the Contractor's risk and in strict compliance with the requirements of the Engineer. If satisfactory results cannot be obtained against an existing valve, the new line shall be disconnected from the existing valve, plugged and retested. Disconnection from the existing water main, and any repairs necessary because of damage caused to the existing lines, valves and service connections shall be at the Contractor's expense.

57. **HAND SWABBING:** The Contractor shall hand swab all pipes and fittings that are not otherwise disinfected. The amount of chlorine to be used during hand swabbing operations will be determined by the City.

58. **SERVICE TRANSFER AND WATER LINE ABANDONMENT:** Where indicated on plans, the existing water lines shall be abandoned and existing water services off these lines, indicated on the plans and shown by house number, shall be transferred to the new water line.

Prior to abandonment of existing water lines, the proposed new water lines shall be tested and chlorinated and then the existing services shall be transferred to the new water lines. The Contractor shall maintain water service to all water customers affected by transfer of service.

All other existing services shown on the plans and not indicated as transfers shall be abandoned in place.

To ensure that all existing water services are transferred to the new water line, no water line shall be abandoned until all affected water services have been transferred; the new water line is put in service; and the existing water line to be abandoned has been shut down for 24 hours.

All visible valve and service boxes on the water line to be abandoned, which will no longer be in service, shall be removed. The required surface restoration shall be paid for under the appropriate bid item(s).

59. **SERVICE CONNECTION PERMITS:** No service connection permits shall be issued or connection made to any service taps until the waterline has been disinfected by the City of Columbus, Division of Water.

60. **DISINFECTION:** All water mains shall be disinfected in accordance with Section 801.13 of the City of Columbus "Construction and Material Specifications" (CMSC). Special attention is directed to applicable sections of AWWA C-651, particularly for flushing (Section 5) and for chlorinating valves and fire hydrants (Section 7). The Contractor shall be responsible for all costs associated with all water mains constructed under this plan.

61. FOR ALL VALVES: If the top of the operating nut is more than 36 inches below finished grade, an extension stem shall be furnished to bring the top of the operating nut to within 24 inches of finished grade elevation. All valve stem extensions are to be installed with the extension secured directly to the valve operating nut with galvanized restraint clips. Cost to be included under CMSC Item 802.
62. BLOCKING: All fittings shall be adequately restrained with concrete blocking per the City of Columbus standard construction drawings. All fittings to be backed must be thoroughly wrapped in a plastic sheeting prior to placing concrete.
63. EXISTING PLUGS, CAPS, ETC.: Plugs and caps removed from existing water lines shall be delivered to the Water Services Center, 4035 Broadway, Grove City, Ohio, unless otherwise directed by the Engineer. No additional payment will be made for this delivery.
64. FIRE HYDRANT REPLACED OR RELOCATED: No existing fire hydrants to be replaced or relocated shall be removed, or taken out of service, until the new water lines are in service and the new fire hydrants are accepted by the Jackson Township Fire Department.
65. OPERATION OF EXISTING VALVES: Existing valves on "in-service" water mains shall be operated by authorized personnel of the City of Columbus, Division of Water.
66. WATER SERVICES: Where and as shown on the plans, the water services shall be extended from the normal locations of the permanent box and curb stop to its terminus point with Copper Type K and a temporary box set at the end of the extension.
67. WATER METERS: All water meters associated with this project shall be installed inside the proposed structure unless a meter pit is approved by the Administrator of the Division of Water. All meter pits must conform to Standard Drawing L-7103, A & B for 5/8" through 1" meters or L-6317, A & B for 1 1/2" or larger meters.

+++++ END OF SECTION +++++

SIGNATURE BLOCK PRESENTED ON FOLLOWING PAGE.

STREET, STORM, AND WATER SIGNATURE BLOCK

“City of Grove City” signatures on this plan signify only concurrence with the purpose and general location of the project. All technical details remain the responsibility of the engineer preparing the plans.

Mayor
City of Grove City, Ohio

Date

City Administrator
City of Grove City, Ohio

Date

Director of Public Safety
City of Grove City, Ohio

Date

Director of Public Service
City of Grove City, Ohio

Date

Reviewed for the City of Grove City

Date

Chief
Jackson Township Fire Department

Date

For the City of Columbus

Approval on the part of the City of Columbus is given pursuant to the provisions of the sewer agreement with the City of Grove City, Ohio dated February 5, 2001 and all subsequent amendments thereof.

Administrator, Division of Water
City of Columbus, Ohio

Date

Director, Department of Public Utilities
City of Columbus, Ohio

Date

(IF WORK IS IN FRANKLIN COUNTY RIGHT-OF-WAY)

Franklin County Engineer

Date